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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,539	10/24/2003	Dany Sylvain	7000-271A	2302
27820 7590 06/11/2009 WITHROW & TERRANOVA, P.L.L.C. 100 REGENCY FOREST DRIVE SUITE 160 CARY, NC 27518				
EXAMINER				
KIM, WESLEY LEO				
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2617				
MAIL DATE		DELIVERY MODE		
06/11/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/693,539

**Applicant(s)**

SYLVAIN, DANY

**Examiner**

WESLEY L. KIM

**Art Unit**

2617

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-23 and 25-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-23 and 25-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
- Paper No(s)/Mail Date 3/23/09
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

1. Claims 1-2, 4-23, and 25-42 are pending in the Current Office Action.
2. This Action is made FINAL.
3. Applicant's arguments filed 3/10/09 have been fully considered but they are not persuasive.
  - Applicant argues that in Sundar the transition of the call from the WLAN to the WWAN is not initiated using a temporary directory number provided by a wireless switch currently providing wireless access for the mobile terminal. Instead Sundar teaches that the mobile station requests that the WLAN switch issue it a TLDN and Applicant further states that the WLAN switch of Sundar is being equated with the wireline switch by the Patent Office.

The examiner respectfully disagrees. The Office has not taken the position that the WLAN switch of Sundar is equated with the wireline switch. Further the claim never recites a wireline switch. In Par.96 of Sundar the examiner has broadly interpreted the broadly recited claims such that the WLAN switch is the wireless switch currently providing wireless access to the mobile terminal. Therefore it is clear that Par.96 of Sundar teaches that the transition of the call from the WLAN to the WWAN is initiated using a temporary directory number provided by a wireless switch currently providing wireless access for the mobile terminal.

- Applicant argues that the mobile station in Sundar receives the TLDN prior to registration in the WWAN and Sundar does not teach that the temporary directory number is assigned to the mobile terminal by the wireless switch upon registration of the mobile terminal with the wireless network.

The examiner respectfully disagrees. Sundar clearly teaches in the previously cited section of Par.102, that the TLDN is used during call setup, where call set up reads on the limitation of "upon registration".

4. Minor changes have been made to the rejections below only to clarify the examiners position in response to the applicant's arguments. No new ground of rejection has been added.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8, 11-16, 18-19, 21-23, 25-26, 29-34, 36-37, and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al (US 2003/0134650 A1) in view of Malmstrom (US 5901359).

**Regarding Claims 1, 11, 22, and 29**, Sundar teaches a) a wireline network interface (Fig.3:112 and Fig.3:120); b) a local wireless interface providing a communication zone in which communications with a mobile terminal are possible (Fig.5:Access Point 204), the mobile terminal associated with a primary directory

number associated with a wireline network (Par.21-23 and Par.96, obviously there is a primary directory number so that the mobile station can be contacted while in the LAN which is a wireline network) and adapted to communicate with the local wireless interface to facilitate a call through the wireline network (Fig.5: LAN) and communicate with a wireless network to facilitate a call through the wireless network (Par.96, mobile station can roam and communicate with WWAN); and c) a control system cooperating with the wireline network interface and the local wireless interface (Fig.5: MSC 302) and adapted to: i) use the primary directory number associated with the wireline network to establish through the wireline network a first call involving the mobile terminal by communicating with the wireline network via the wireline network interface (Par.21-23 and Par.96, obviously there is a primary directory number so that the mobile station can be contacted while in the LAN which is a wireline network) and communicating with the mobile terminal via the local wireless interface (Fig.5: Access Point 204 is used so the mobile terminal communicates with the local wireless interface); ii) during the first call (Par.23), detect the mobile terminal moving out of the local wireless communication zone (Par.96:lines 9-16); and iii) initiate a transition of the first call being connected to the mobile terminal through the wireline network via the local wireless interface (Par.96: handover is initiated) to the first call being connected to the mobile terminal through the wireless network using a temporary directory number provided by a wireless switch currently providing wireless access for the mobile terminal (Par.96, temporary directory number is provided by

wireless switch (i.e. MSC of WLAN)), however **Sundar does not expressly teach** a primary directory number associated with the wireline network.

Malmstrom teaches that it is well known in the art that a primary directory number may be associated with a wireline network (Col.10:lines 43-45). Clearly, when the subscriber roams into a wireless network, the subscriber is provided service by utilizing a temporary directory number (Col.11:lines 5-20).

Therefore, one of ordinary skill in the art would have found it obvious to modify Sundar with Malmstrom at the time of the invention such that a primary directory number associated with the wireline network so that a user may be provided with the best service at the lowest possible cost, since wireline networks are cheaper than wireless.

**Regarding Claims 2 and 23,** Sundar teaches the mobile terminal is registered with the wireless network while the first call is established and the temporary directory number is assigned to the mobile terminal by the wireless switch upon registration (Par.96:lines 30-34, Par.22, and Par.102, the mobile terminal can have the temporary directory number (i.e. TLDN) assigned during call set-up (i.e. upon registration)).

**Regard Claims 4 and 25,** Sundar teaches the transition is initiated by sending a message configured to initiate establishing a wireless network connection to the mobile terminal through the wireless network using the temporary directory number associated with the mobile terminal (Par.96:lines 17-20 and Par.22 and Par.102, request for the temporary directory number is the

message initiating); connecting the first call to the wireless network connection (Par.96:lines 33-39), and dropping a wireline network connection with the mobile terminal (Par.71:lines 9-11).

**Regarding Claim 5**, Sundar teaches the wireline network interface is a traditional telephony line interface (Fig.3:112, PSTN).

**Regarding Claim 6**, Sundar teaches the wireline network interface is a voice over packet interface (Fig.3:120, IP indicates that voice would be transmitted as voice over packet on this interface).

**Regarding Claim 7**, Sundar teaches the wireless network is of CDMA (Par.13).

**Regarding Claims 8, 21, 26, and 40**, Sundar teaches the transition is initiated by sending a message intended for a wireline switch and configured to cause the wireline switch to transfer the first call to the mobile terminal through the wireless network using the temporary directory number (Par.96:lines 17-20 and Par.22 and Par.102, request for the temporary directory number by the mobile terminal is the message initiating).

**Regarding Claims 12 and 30**, Sundar teaches the control system includes signal processing function adapted to provide any necessary conversion of signals between the wireline network interface and the local wireless interface (Par.53, voice coding technology).

**Regarding Claims 18-19 and 36-37**, Sundar teaches the local wireless interface is adapted to support communications with the mobile terminal using 802.11 wireless local area network telephone technology (Par.9 and Fig.3: LAN).

**Regarding Claim 39**, Sundar teaches inserting a signal in the voice path for the first call prior to initiating the transition to warn parties to the first call of transfer (Par.96:lines 28-30).

**Regarding Claims 13-16 and Claims 31-34**, Sundar teaches that a mobile station determines the mobile station moving out of the communication zone by detecting bit error rate, a degradation in quality, an inability to communicate with the mobile terminal, a decrease in signal strength associated with communications with the mobile terminal via the local interface surpassing a defined threshold (Par.96) however **the combination of Sundar and Malmstrom do not expressly teach** that the control system performs the detection.

The examiner takes **OFFICIAL NOTICE** that it is very well known in the art that power control (i.e. detection of handover based on signal strength) is capable of being performed at the mobile station or at the network side (i.e. MSC/ control system). Therefore to one of ordinary skill in the art, it would have been obvious to modify Sundar and Malmstrom such that the control system performs the detection to provide a method where the mobile station wastes less resources by allowing the network to perform the detection of when a handover is necessary.



7. Claims 9-10 and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al (US 2003/0134650 A1) and Malmstrom (US 5901359) in further view of Schellinger et al (US 5260988).

**Regarding Claims 9 and 27**, Sundar and Malmstrom teach all the limitations as recited in Claims 1, and 22, and Sundar teaches sending a message intended for a wireline switch (Par.96:lines 18-21), however **the combination does not expressly teach** causing the wireline switch to establish a three-way call based on the first call to the mobile terminal through the wireless network using the temporary directory number.

Schellinger teaches that it is well known in the art that a transition is initiated by sending a message (Co1.8:30, i.e. request) intended for a wireline switch (Co1.8:30-31) and configured to cause the wireline switch to establish a three-way call (Col.8:32-34) based on the first call to the mobile terminal through the wireless network using the temporary directory number (Col.8:29-34, i.e. the TLDN/cellular telephone number). This concept of utilizing a TLDN in a 3-way call to transition between a wired to a wireless network is known as can be seen in Schellinger.

To a skilled artisan, it would have been obvious to modify Sundar, Malmstrom, and Schelling at the time of the invention, such that the wireline switch to establish a three-way call based on the first call to the mobile terminal through the wireless network using the temporary directory number, to provide a method where a call can be handed off as it roams between different networks so

that a users on-going communication can continue with the least amount of interruption.

**Regarding Claims 10 and 28**, Sundar teaches a second message intended for the wireline switch and configured to instruct the wireline switch to drop a wireline network connection (Par.71:lines 9-11).

8. Claims 20 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al (US 2003/0134650 A1) and Malmstrom (US 5901359) in further view of Hamalainen et al (US 2002/0061744 A1).

**Regarding Claims 20 and 38**, Sundar and Malmstrom teaches all the limitations as recited in claims 1 and 22, however **the combination does not expressly teach** the local wireless interface is adapted to support communications with the mobile terminal using Bluetooth.

Hamalainen teaches that a local wireless interface is adapted to support communication with a mobile terminal using Bluetooth (Par.20).

Therefore, to a skilled artisan it would have been obvious to modify Sundar and Malmstrom with Hamalainen such that the local wireless interface is adapted to support communications with the mobile terminal using Bluetooth, to provide a low cost method of short range wireless voice and data links between devices.

9. Claims 17 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al (US 2003/0134650 A1) and Malmstrom (US 5901359) in further view of Charney et al (US 2004/0132485 A1).

**Regarding Claims 17 and 35**, Sundar and Malmstrom teaches all the limitations as recited in Claims 1 and 22, **however the combination does not expressly teach** that the local wireless interface is adapted to support communications with the mobile terminal using cordless telephone technology.

Charney teaches that it is well known in the art that a wireless LAN and access points provide data services by a cordless telephone (Par.28 and Fig.4).

- Therefore, to a skilled artisan it would have been obvious to modify Sundar and Malmstrom with Charney, such that that the local wireless interface is adapted to support communications with the mobile terminal using cordless telephone technology, to provide a method where a dual mode phone may operate in a wireline system when possible so that the lowest cost may be incurred for service.
10. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sundar et al (US 2003/0134650 A1) and Malmstrom (US 5901359) in further view of Ginter (US 5579375).

**Regarding Claims 41 and 42**, Sundar and Malmstrom teach all the limitation as recited in Claims 1 and 22, however **the combination does not expressly teach** a visiting location register is associated with the wireless switch and accesses the temporary directory number from the wireless switch and provides the temporary directory number directly or indirectly via a home location register to a wireline switch in the wireline network.

Ginter teaches that it is well known in the art that a visiting location register is associated with a wireless switch and accesses the temporary directory number

from the wireless switch and provides the temporary directory number directly or indirectly via a home location register to an initiating wireless switch in another wireless network (Col.8:lines 45-65). To a skilled artisan, this concept of obtaining temporary directory numbers is well known in the art and is applicable to different systems (i.e. wireless/wireline).

Therefore, to a skilled artisan it would have been obvious to modify Sundar and Malmstrom with Ginter such that a visiting location register is associated with the wireless switch and accesses the temporary directory number from the wireless switch and provides the temporary directory number directly or indirectly via a home location register to a wireline switch in the wireline network, to provide a method where a user may be allowed to roam while making calls without having the call be disrupted.

### ***Conclusion***

**11. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **WESLEY L. KIM** whose telephone number is (571)272-7867. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George Eng/  
Supervisory Patent Examiner, Art Unit 2617

/Wesley L Kim/  
Examiner, Art Unit 2617

